

Abstract

An abrasive composition comprising non-polymeric organic particles that is useful for chemical mechanical planarization (CMP), and which can widely be used in the semiconductor industry. The inventive compositions preferably comprise soft water in combination with 0.001 – 20 w/w % of non-polymeric organic particles, 0.1 – 10 w/w % of an oxidizing agent, 0.05 – 10 w/w % of a chelating agent, 0.01 – 10 w/w % of a surfactant, and 0 – 10 w/w % of a passivation agent at a pH in the range of 2-12, wherein said percentages are w/w (weight/weight) percentages, based on the total weight of said compositions. The abrasive compositions provide an efficient polishing rate, excellent selectivity and good surface quality when utilized as a new abrasive composition in CMP applications.